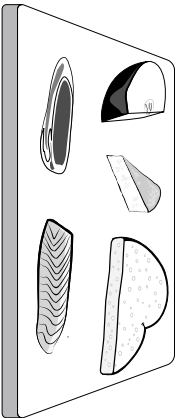


# C1 Testing foods for protein and fat

Choose and collect samples of five different foods that you want to test. Arrange small quantities of them on a tile, not touching each other, as in the diagram.

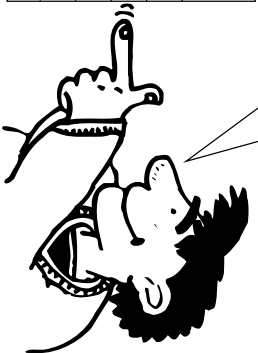


## Testing for protein

- 1 Chop up or crush a small sample of the first food, and put it into a test tube.
- 2 Add about 3 cm depth of biuret solution. Shake the tube, or stir with a clean glass rod, to mix the food and the biuret solution.
- 3 Record your result and conclusion (whether the food contains protein or not) in a table like this.

If it stays blue, there is no protein. If it turns purple, that means protein is present.

Food being tested	Colour after adding biuret solution	Conclusion



## Testing for fat

- 1 Read what you are going to do, and then draw a results chart similar to the one you used for the results and conclusions of the protein test.
- 2 Chop or crush a sample of the first food, and put it into a very clean, dry test tube.
- 3 Add enough ethanol to cover the food. Shake the tube, or stir with a clean glass rod, to mix the food and the ethanol.
- 4 Put some water into another clean test tube. Carefully pour some of the ethanol in the tube with the food (do not pour in the food!) into the water. If the water stays clear, then there is no fat in the food. If the water goes milky white, it means that fat is present in the food.
- 5 For each food, record your result and conclusion in the table.

## C2 Testing foods for starch and sugar

Starch and sugar are two different kinds of carbohydrate.

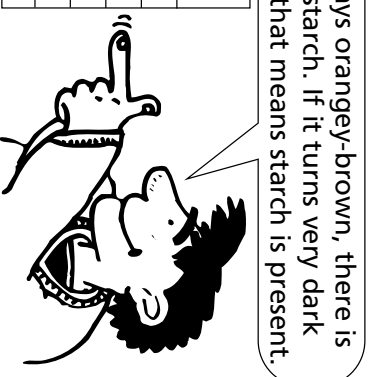
Collect samples of five different foods that you want to test. Arrange small quantities of them on a tile, not touching each other.

### Testing for starch

- 1 Put a small sample of the first food onto a white tile. Add a few drops of iodine solution.
- 2 Record your result and conclusion (whether the food contains starch or not) in a table like this.

#### Results table for starch

Food being tested	Colour after adding iodine solution	Conclusion



### Testing for sugar

- 1 Read what you are going to do, and then draw a results chart similar to the one for starch.
  - 2 Put a small sample of the first food into a boiling tube. Add about 3 cm depth of Benedict's solution, and mix it with the food.
  - 3 Stand the tube in a very hot water bath, and leave it for about 5 minutes. (You can be getting on with the other four foods while you are waiting.)
- If there is sugar in the food, the colour will change from blue through a sort of dirty green, then yellow, then orangey-red.

For each food, record your result and conclusion in the table.